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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,042	12/15/2000	William N. Partlo	2000-0067-1	2316

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EXAMINER

DIAZ, JOSE R

ART UNIT PAPER NUMBER

2815

DATE MAILED: 07/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/738,042

Applicant(s)

PARTLO ET AL.

Examin r

José R Díaz

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-- The MAILING DATE of this communication appears n the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) 2 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

➤ A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 10, 2003 has been entered.

Claim Objections

➤ Claims 7-10 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 2-5, respectively. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102

➤ The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

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➤ Claims 1, 3-6 and 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Das et al. (US Pat. No. 5,978,409).

Regarding claims 1 and 6, Das et al. teach a laser device comprising: a first direction beam expander (26, 30), a second direction beam expander (32) and a grating (36) (see Fig. 2 and "Background of the Invention").

Regarding claims 3-4 and 8-9, Das et al. teach that the first direction beam expander is comprised of three prisms (26, 28, 30) and the second direction beam expander is comprised of a single prism (32) (see Fig. 2).

Regarding claims 5 and 10, Das et al. further teach a tuning mirror (34) (see Fig. 2).

Claim Rejections - 35 USC § 103

➤ The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

➤ Claims 1, 3-6 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Das et al. (US Pat. No. 5,978,409) in view of P. Zorabedian, "Characteristics of a Grating-External-Cavity Semiconductor Laser Containing Intracavity Prism Beam Expanders, IEEE, Journal of Lightwave Technology, vol. 10, No. 3, March 1992.

Regarding claims 1 and 6, Applicant acknowledges a well-known laser device (see Fig. 2) comprising: a laser chamber (3), first and second direction beam expanders (8, 10, 12) and a grating (36) (see Fig. 2 and "Background of the Invention"). However, Applicant states that the prior art fails to describe a "vertical" direction beam expander. P. Zorabedian teaches that is well known in the art to vary the number of prisms as well as their refractive indexes, angles of incidence and apex angles (see page 331, col. 1, lines 8-9). Therefore, it would have been obvious to one having ordinary skill in the art at the same time the invention was made to modify Applicant's Specification to include a "vertical" direction beam expander. The ordinary artisan would have been motivated to modify Applicant's Specification in the manner described above for at least the purpose of providing narrow linewidth.

Regarding claims 3-4 and 8-9, Applicant acknowledges the use of three direction beam expanders (see Fig. 4b). However, Applicant states that the prior art fail to describe that the first direction beam expander is comprised of three prisms and the second direction beam expander is comprised of a single prism. However, P.

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Zorabedian teaches that is well known in the art to vary the number of prisms as well as their refractive indexes, angles of incidence and apex angles (see page 331, col. 1, lines 8-9). Therefore, it would have been obvious to one having ordinary skill in the art at the same time the invention was made to modify Applicant's Specification to include first direction beam expander comprises of three prisms and the second direction beam expander comprises of a single prism. The ordinary artisan would have been motivated to modify Applicant's Specification in the manner described above for at least the purpose of providing narrow linewidth.

Regarding claims 5 and 10, Applicant acknowledges the use of a tuning mirror (14) (see Fig. 2).

Allowable Subject Matter

➤ Claims 2 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

➤ Applicant's arguments filed June 10, 2003 have been fully considered but they are not persuasive. As stated in the Advisory action mailed on May 21, 2003, Applicant should note that during patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification" (see MPEP 2111). As such, the independent claims, as drafted, do not limit the invention to only expanding the beam in the vertical and horizontal direction, as argued by Applicant. As a matter of fact, any inclination of the beam during the expanding process

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constitutes a new direction. For example, Das et al. teaches at least four beam expander (26, 28, 30, 32), which direct the beam in four different directions, each having different angles or inclinations (see Fig. 2). Thus, Das et al. anticipates the claimed invention by expanding the beam at least in two different directions. Please note that the interpretation also applies for the §103 rejection. Thus, the rejections over the cited prior art are considered to be proper.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to José R Díaz whose telephone number is (703) 308-6078. The examiner can normally be reached on 9:00-5:00 Monday, Tuesday, Thursday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703) 308-1690. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 746-3891 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JRD
June 27, 2003



EDDIE LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800